YAESU

AIR BAND TRANSCEIVERS

PRODUCT CATALOG

FTA-850L

Bluetooth GPS

MIL-STD-810H

FTA-750L

GPS

MIL-STD-810F

FTA-550L
FTA-550 *AA Battery Version*

MIL-STD-810F

FTA-450L

MIL-STD-810F

FTA-250L

MIL-STD-810F

Professional Grade
Yaesu Legendary Rugged Construction and High Performance

Full-Color Display
Bluetooth
GPS
MIL-STD-810H

FTA-850L

VOR Navigation
ILS Navigation
Flight Route Display and Navigation

Supplied accessories:
•Li-Ion Battery Pack •Charger Cradle •AC Charger
•Cigarette Lighter DC/DC Converter •Antenna •Belt Clip
•Headset Adapter Cable •Alkaline Battery Tray •USB Cable

Superior Visibility and Operability

High resolution Full color Display
ILS (Localizer & Glide Slope) Equipped
VOR Navigation and Integrated GPS Receiver
Flight-Route Display and Navigation

Features

- 6 Watts TX Output Power (Air Band: AM 6W, P.E.P. typical, 1.8W carrier)
- Oversized 2.4-inch & TFT Color Display (240 × 320 pixel)
- Dual Frequency Display (DD)
- Bluetooth® wireless Operation*1
- ILS Navigation Display (Localizer and Glide Slope)
- VOR Navigation Display
- Integrated 66 Channel WAAS GPS receiver
- Waypoint Navigation
- Flight-Route Display and Navigation
- Available GPS Position Logging operation*2
- 8.33 kHz Narrow Band compatible
- NOAA Weather Channel Receive*3
- NOAA Weather Alert*3
- 400 Memory Channels with 14 character alphanumeric tags
- Back-lit Keypad and Display, with Dimmer
- Water Protection – IPX5 Rating
- Rugged Construction: Certified to MIL-STD-810H
- Loud Audio Output (0.8W)
- Noise-canceling function for both transmit and receive audio
- Includes High-Capacity Rechargeable Li-ion Battery Pack (7.2V, 2200mAh)
- Includes Alkaline Battery Tray (AA × 6)
- External-DC input for operation and charging
- PC Programmable (Included micro USB Cable)

*1 Requires the optional Bluetooth headset (SSM-BT10) or a commercially available headset.
*2 The YCE46 PC Programming Software (available online) is required to view the GPS Log data.
*3 NOAA Weather alert: when available in-service area.

ILS Navigation (Localizer & Glide Slope)

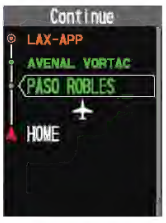
When the FTA-850L receives an ILS signal, the display will automatically switch to the NAV band screen which shows a CDI (course deviation indicator) based on the received localizer signal or the glide slope signal. Course and height deviation are clearly presented on the color CDI display, and aid with the landing approach under bad weather conditions.

VOR Navigation

When the FTA-850L receives a VOR signal, the display automatically switches to NAV band screen and shows the CDI. The top of the compass rose always indicates the direction set as the OBS. The SOG (speed over ground) is displayed only when the FTA-850L internal GPS unit is activated and acquires a fix.

Flight-Route Display & Navigation

The Flight Route Navigation feature clearly presents the traveling route, listing the waypoints from the departure point to the final destination, including the current position where Navigation is being performed. Route, location and travel status can be assessed at a glance. Also, navigation is displayed on an easy-to-read color compass screen.



Dual Frequency Display

DD (Dual Frequency Display) screen presents two frequencies separately on the top and bottom of the screen. The most recently tuned information (Comm frequency, Memory group and Weather channel) are always set into the active channel automatically. The target mode and channel can easily be switched between different modes using the DD screen, without going through the MENU.

GPS
MIL-STD-810F

FTA-750L

VOR Navigation
ILS Navigation

Supplied accessories:
•Li-Ion Battery Pack •Charger Cradle •AC Charger
•Cigarette Lighter DC/DC Converter •Antenna •Belt Clip
•Headset Adapter Cable •Alkaline Battery Tray •USB Cable

Enhanced Performance

ILS (Localizer & Glide Slope) Equipped
VOR Navigation and Integrated GPS receiver

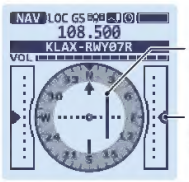
Features

- 5 Watts TX Output Power (Air Band: AM 5W P.E.P. typical, 1.5W carrier)
- Huge 1.7"× 1.7" (43.2 × 43.2mm) Full-Dot Matrix Display (160 × 160 dots)
- ILS Navigation Display (Localizer and Glide Slope)
- VOR Navigation Display
- Integrated 66 Channel WAAS GPS receiver
- Waypoint Navigation
- Available GPS Position Logging operation*1
- 8.33kHz Narrow Band compatible
- NOAA Weather Channel Receive*2
- NOAA Weather Alert*2
- 200 Memory Channels with 15 character alphanumeric tags
- Back-lit Keypad and Display with Dimmer
- Water Protection – IPX5 Rating
- Rugged Construction: Certified to MIL-STD-810F
- Loud Audio (0.8W)
- Includes High-Capacity Rechargeable Li-Ion Battery Pack (7.2V, 2200mAh)
- Includes Alkaline Battery Tray (AA × 6)
- External-DC input for operation and charging
- PC Programmable (Included USB Cable)

*1 The YCE01 PC Programming Software (available online) is required to view the GPS Log data.
*2 Only available in NOAA weather service areas.

ILS Navigation (Localizer & Glide Slope)

Course deviation based on the received localizer signal, and altitude deviation based on the received glide slope signal, can be easily visualized on the CDI display.
The superior visibility aids in the landing approach during bad weather conditions.



Waypoint Navigation

The navigation feature of the FTA-750L presents a compass that helps determine the destination and bearing at a glance.

VOR Navigation

When the FTA-750L receives a VOR signal, the display will automatically switch to the NAV band screen and show the CDI based on the received signal. The SOG (speed over ground) is displayed only when the internal FTA-750L GPS unit is activated and acquires a fix.



MIL-STD-810F

FTA-550L

VOR Navigation
ILS Navigation (Localizer)

Supplied accessories:
•Li-Ion Battery Pack •Charger Cradle •AC Charger
•Cigarette Lighter DC/DC Converter •Antenna •Belt Clip
•Headset Adapter Cable •Alkaline Battery Tray •USB Cable

Professional Specifications

Advanced Operation with ILS (Localizer), VOR Navigation

Features

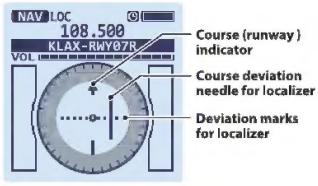
- 5 Watts TX Output Power (Air Band: AM 5W P.E.P. typical, 1.5W carrier)
- Huge 1.7"× 1.7"(43.2 × 43.2mm) Full-Dot Matrix Display (160 × 160 dots)
- ILS Navigation Display (Localizer)
- VOR Navigation Display
- 8.33kHz Narrow Band compatible
- NOAA Weather Channel Receive*2
- NOAA Weather Alert*2
- 200 Memory Channels with 15 character alphanumeric tags
- Back-lit Keypad and Display with Dimmer
- Water Protection – IPX5 Rating
- Rugged Construction: Certified to MIL-STD-810F
- Loud Audio (0.8W)
- Includes High-Capacity Rechargeable Li-Ion Battery Pack (7.2, V 2200mAh)
- Includes Alkaline Battery Tray (AA × 6)
- External-DC input for operation and charging
- PC Programmable (Included USB Cable)

FTA-550 *AA Battery Version*

Supplied accessories:
•Cigarette Lighter DC/DC Converter
•Antenna •Belt Clip •Headset Adapter Cable
•Alkaline Battery Tray •USB Cable

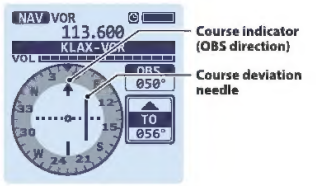
ILS Navigation (Localizer)

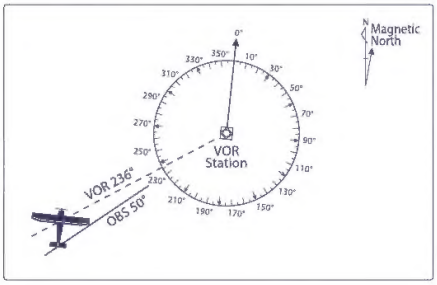
Course deviation based on the received localizer signal can be clearly viewed on the CDI display. The superior visibility aids in the landing approach during bad weather conditions.



VOR Navigation

When the FTA-550 receives a VOR signal, the display will automatically switch to the NAV band screen and show the CDI based on the received signal.





MIL-STD-810F

FTA-450L

Supplied accessories:
•Li-Ion Battery Pack •Charger Cradle •AC Charger
•Cigarette Lighter DC/DC Converter •Antenna
•Belt Clip •Headset Adapter Cable
•Alkaline Battery Tray •USB Cable

Advanced User Interface

Oversize 1.7" × 1.7" Full-Dot Matrix Display Assuring intuitive operation

Features

- 5 Watts TX Output Power (Air Band: AM 5W, P.E.P. typical, 1.5W carrier)
- Huge 1.7"× 1.7" (43.2 × 43.2mm) Full-Dot Matrix Display (160 × 160 dots)
- Loud Audio (0.8W)
- 8.33kHz Narrow Band compatible
- 200 Memory Channels with 15 character alphanumeric tags
- Water Protection – IPX5 Rating
- Rugged Construction: Certified to MIL-STD-810F
- Includes High-Capacity Rechargeable Li-ion Battery Pack (7.2V, 2200mAh)
- External-DC input for operation and charging
- Includes Alkaline Battery Tray (AA × 6)
- NOAA Weather Channel Receive*2
- NOAA Weather Alert*2
- Back-lit Keypad and Display with Dimmer
- PC Programmable (Included USB Cable)

MIL-STD-810F

FTA-250L

Supplied accessories:
•Li-Ion Battery Pack •Charger Cradle •AC Adapter
•Cigarette Lighter DC/DC Converter •Antenna
•Belt Clip •Headset Adapter Cable

Ultra Compact and Rugged Construction

0.7W Loud Audio and Noise-Canceling Feature built into a Compact case

Features

- 5 Watts TX Output Power (Air Band: AM 5W, P.E.P. 1.5W carrier)
- Compact Design, Measuring 2.1" × H4.1"× D1.2" (52 ×105 × 30mm)
- Rugged Construction: Certified to MIL-STD-810F
- Loud Audio (0.7W)
- Noise-canceling function for both transmit and receive audio
- 8.33kHz Narrow Band compatible
- 250 Memory Channels
- Includes High-Capacity Rechargeable Li-ion Battery Pack (7.4V, 1950mAh)
- External-DC input for operation and charging
- AF Pitch Control
- Flip Flop Last Channel Recall
- Dual Watch
- NOAA Weather Channel Receive*2
- NOAA Weather Alert*2
- Back-lit Keypad and Display with Dimmer
- PC Programmable (Requires Optional USB Cable :SCU-37)

*2 Only available in NOAA weather service areas.

Specifications

	FTA-850L	FTA-750L	FTA-550L / FTA-550	FTA-450L	FTA-250L
General					
Frequency Range	TX: 118.000 to 136.9916 MHz RX: 108.000 to 136.9916 MHz (NAV and COM) 161.650 to 163.275 MHz (Weather Channels*1) 329.150 to 335.000 MHz (Glide Slope)	TX: 118.000 to 136.9916 MHz RX: 108.000 to 136.9916 MHz (NAV and COM) 161.650 to 163.275 MHz (Weather Channels*1) 329.150 to 335.000 MHz (Glide Slope)	TX: 118.000 to 136.9916 MHz RX: 108.000 to 136.9916 MHz (NAV and COM) 161.650 to 163.275 MHz (Weather Channels*1)	TX: 118.000 to 136.9916 MHz RX: 118.000 to 136.9916 MHz 161.650 to 163.275 MHz (Weather Channels*1)	TX: 118.000 to 136.9916 MHz RX: 118.000 to 136.9916 MHz 161.650 to 163.275 MHz (Weather Channels*1)
Channel Spacing	25 kHz/8.33 kHz	25 kHz/8.33 kHz	25 kHz/8.33 kHz	25 kHz/8.33 kHz	25 kHz/8.33 kHz
Emission Type	TX: AM RX: AM & FM (FM: for receiving the Weather Channels)	TX: AM RX: AM & FM (FM: for receiving the Weather Channels)	TX: AM RX: AM & FM (FM: for receiving the Weather Channels)	TX: AM RX: AM & FM (FM: for receiving the Weather Channels)	TX: AM RX: AM & FM (FM: for receiving the Weather Channels)
Supply Voltage	6.0 to 9.5 VDC	6.0 to 9.5 VDC	6.0 to 9.5 VDC	6.0 to 9.5 VDC	6.0 to 9.5 VDC
Current Consumption (approx.)	300 µA (power off) 125 mA (battery saver on, saver ratio 50 %, GPS on) 160 mA (squelch on, GPS on) 300 mA (receive) 1.1 A (transmit 1.8 W Carrier)	300 µA (power off) 80 mA (battery saver on, saver ratio 50 %, GPS on) 110 mA (squelch on, GPS on) 300 mA (receive) 0.9 A (transmit 1.5 W Carrier)	300 µA (power off) 60 mA (battery saver on, saver ratio 50 %) 80 mA (squelch on) 300 mA (receive) 0.9 A (transmit 1.5 W Carrier)	300 µA (power off) 60 mA (battery saver on, saver ratio 50 %) 80 mA (squelch on) 300 mA (receive) 0.9 A (transmit 1.5 W Carrier)	300 µA (power off) 70 mA (battery saver on, saver ratio 50 %) 90 mA (squelch on) 300 mA (receive) 0.9 A (transmit 1.5 W Carrier)
Temperature Range	+14°F to + 140°F (–10°C to +60°C)	+14°F to + 140°F (–10°C to +60°C)	+14°F to + 140°F (–10°C to +60°C)	+14°F to + 140°F (–10°C to +60°C)	+14°F to + 140°F (–10°C to +60°C)
Antenna Connector	BNC Type	BNC Type	BNC Type	BNC Type	BNC Type
Case Size (W × H × D)	2.4" × 5.2" × 1.3" (60 × 132 × 34 mm) with SBR-39LI	2.4" × 5.2" × 1.3" (62 × 133 × 34 mm) with SBR-39LI	2.4" × 5.2" × 1.3" (62 × 133 × 34 mm) with SBR-39LI	2.4" × 5.2" × 1.3" (62 × 133 × 34 mm) with SBR-39LI	2.1" × 4.1" × 1.2" (52 × 105 × 30 mm) with SBR-25LI
Weight (approx.)	13.9 oz (395 g) with SBR-39LI, antenna and belt clip	14.5 oz (410 g) with SBR-39LI, antenna and belt clip	14.5 oz (410 g) with SBR-39LI, antenna and belt clip	14.5 oz (410 g) with SBR-39LI, antenna and belt clip	10.6 oz (300 g) with SBR-25LI, antenna and belt clip
Receiver					
Circuit Type	Double-conversion superheterodyne	Double-conversion superheterodyne	Double-conversion superheterodyne	Double-conversion superheterodyne	Double-conversion superheterodyne
IFs	47.25 MHz & 450 kHz	47.25 MHz & 450 kHz	47.25 MHz & 450 kHz	47.25 MHz & 450 kHz	47.25 MHz & 450 kHz
Sensitivity	Better than 0.8 µV (for 6 dB S/N with 1 kHz, 30 % modulation)	Better than 0.8 µV (for 6 dB S/N with 1 kHz, 30 % modulation)	Better than 0.8 µV (for 6 dB S/N with 1 kHz, 30 % modulation)	Better than 0.8 µV (for 6 dB S/N with 1 kHz, 30 % modulation)	Better than 0.8 µV (for 6 dB S/N with 1 kHz, 30 % modulation)
Selectivity	Better than 8 kHz/–6 dB	Better than 8 kHz/–6 dB	Better than 8 kHz/–6 dB	Better than 8 kHz/–6 dB	Better than 8 kHz/–6 dB
Adjacent CH. Selectivity	Less than 25 kHz/–60 dB	Less than 25 kHz/–60 dB	Less than 25 kHz/–60 dB	Less than 25 kHz/–60 dB	Less than 25 kHz/–60 dB
AF Output (Internal speaker)	0.8 W @ 16 Ohms, 10 % THD	0.8 W @ 16 Ohms, 10 % THD	0.8 W @ 16 Ohms, 10 % THD	0.8 W @ 16 Ohms, 10 % THD	0.7 W @ 16 Ohms, 10 % THD
Transmitter					
Power Output	6.0 W (PEP), 1.8 W (Carrier Power)	5.0 W (PEP), 1.5 W (Carrier Power)	5.0 W (PEP), 1.5 W (Carrier Power)	5.0 W (PEP), 1.5 W (Carrier Power)	5.0 W (PEP), 1.5 W (Carrier Power)
Frequency Stability	Better than ±1 ppm (+14°F to + 140°F [–10°C to +60°C])	Better than ±1 ppm (+14°F to + 140°F [–10°C to +60°C])	Better than ±1 ppm (+14°F to + 140°F [–10°C to +60°C])	Better than ±1 ppm (+14°F to + 140°F [–10°C to +60°C])	Better than ±1 ppm (+14°F to + 140°F [–10°C to +60°C])
Modulation System	Low Level Amplitude Modulation	Low Level Amplitude Modulation	Low Level Amplitude Modulation	Low Level Amplitude Modulation	Low Level Amplitude Modulation
Spurious Emission	> 70 dB below carrier	> 70 dB below carrier	> 70 dB below carrier	> 70 dB below carrier	> 70 dB below carrier
Int. Microphone Type	Condenser	Condenser	Condenser	Condenser	Condenser
Ext Mic. Impedance	150 Ohms	150 Ohms	150 Ohms	150 Ohms	150 Ohms

*1 Only available in NOAA weather service areas.

GPS Unit (FTA-850L, FTA-750L)

Receiver Channels	66 Channels
Sensitivity	Less than –147 dBm
Time to First Fix	1 minute typical (@ Cold Start) 5 seconds typical (@ Hot Start)
Geodetic Datum	WGS84

Bluetooth® (FTA-850L)

Version	Version 4.2
Class	Class 2
Output Power	2 dBm

Applicable MIL-STD

Standard: MIL-STD-810F, [MIL-STD-810H]					
MIL Standard	**Method / Procedures**		**MIL Standard**	**Method / Procedures**	
Low Pressure	500.4 / I, II	[500.6 / I,II]	Humidity	507.4	[507.6 / II]
High Temperature	501.4 / I, II	[501.7 / I,II]	Salt Fog	509.4	[509.7 / I]
Low Temperature	502.4 / I, II	[502.7 / I,II]	Setting Dust	510.4 / III	[510.7 / I]
Temperature Shock	503.4 / I	[503.7 / I-B]	Vibration	514.5 / I	[514.8 / I]
Solar Radiation	505.4 / I	[505.7 / I]	Shock	516.5 / I, IV	[516.8 / I,IV]
Rain Blowing/Drip	506.4 / I, III	[506.6 / I,III]	–	–	

Accessories & Options

	 **SSM-BT10** Bluetooth Headset	 **SSM-20A** Speaker Microphone	 **SEP-10A*1** Earphone for SSM-20A	 **SEP-11A** Earphone	 **SBR-39LI** Li-Ion Battery Pack (7.2 V, 2,200 mAh)	 **SBR-25LI** Li-Ion Battery Pack (7.4 V, 1,950 mAh)	 **SBR-26LI** Li-Ion Battery Pack (7.4 V, 2,500 mAh)	 **SBH-11** Charger Cradle	 **SAD-25B/C/U*2** AC Charger	 **SBH-22** Charger Cradle	 **SAD-26B/C/U*2** AC Charger for SBH-22
FTA-850L	●	●	●	●	●			●	●		
FTA-750L		●	●	●	●			●	●		
FTA-550L / FTA-550		●	●	●	●			●	●		
FTA-450L		●	●	●	●			●	●		
FTA-250L		●	●	●		●	●			●	●

	 **SDD-12** Cigarette Lighter DC/DC Converter	 **SRA-20A** Helical Antenna	 **SHB-11** Belt Clip	 **SHB-18** Belt Clip	 **SHB-110** Quick Release Holster	 **SCH-11** Belt Clip Hanger	 **SCU-42** Headset Adapter Cable	 **SBT-12** Alkaline Battery Tray	 **T9101606** USB Cable (miniUSB / USB-A)	 **T9101648** USB Cable (microUSB / USB-A)	 **SCU-37** USB Programming Cable
FTA-850L	●	●	●		●	●	●	●		●	
FTA-750L	●	●	●			●	●	●	●		
FTA-550L / FTA-550	●	●	●			●	●	●	●		
FTA-450L	●	●	●			●	●	●	●		
FTA-250L	●	●		●			●				●

*1 Requires SSM-20A *2 Depending on the transceiver version

Specifications are subject to change without notice or obligation.

About this brochure: We have made this brochure as comprehensive and factual as possible. We reserve the right, however, to make changes at any time in equipment, optional accessories, specifications, model numbers, and availability. Precise frequency range may be different in some countries. Some accessories shown herein may not be available in some countries. Some information may have been updated since the time of printing; please check with your Authorized YAESU Dealer for complete details.

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VEGETABLE OIL INK

2021.0910YS (U/EXP/EU) B9200914 Printed in Japan